

## REMARKS

The Office Action mailed May 4, 2004 has been carefully reviewed, along with the references cited therein. In the Office Action, the Examiner rejected claims 15-17 and 20 under § 102 (b) as being anticipated by U.S. Patent Number 4,286,573 ("Nickel"). The Examiner also rejected claims 7-10, 12 and 21 under § 103 (a) as being unpatentable over Nickel in view of U.S. Patent Number 1,173,620 ("Thompson"). The Examiner allowed claims 1-3, 5 and 6. Applicant appreciates the indication of allowable subject matter.

In this response, Applicant respectfully submits that Nickel does not anticipate claims 15-17 and 20. Furthermore, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case for obviousness with respect to claim 7-10, 12 and 21.

In rejecting claim 15, the Examiner argued that Nickel included a tail-like portion 18 that inherently restricts rotational movement of the sealing member in both the X and Z axis and that Nickel includes a second portion 16 that restricts rotation about the Y axis. The second portion 16 of Nickel engages the inner annular end 22 of nipple 10 to limit movement of sealing member 17 from valve seat 21. Column 3, lines 46-48. The second portion 16 simply restricts movement **along** the Y axis, the axis parallel with the length of the nipple 10. The catch 16 does **not** restrict rotational movement **about** the Y axis. No force is applied to counteract a rotational movement about the Y axis except for a frictional force between the catch 16 and the annular end 22 and perhaps a small force supplied by the water in the tank. Nevertheless, these small forces would easily be overcome by water flowing through the nipple 10, therefore allowing the catch 16 to spin around the annular end 22 thus rotating about the Y axis.

Furthermore, the rod 18 does **not** restrict rotational movement in either of the X and Z axis. A rod by itself does not inherently restrict rotational movement, especially with water flowing through a pipe around the rod. Furthermore, the flat rear surface of the sealing member 17 will break up any laminar flow of water around the rod 18 further increasing the likelihood of rotation about either the X or Z axis. When relying on the theory of inherency, the Examiner must provide bases in fact and/or technical reasoning

to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied reference. MPEP § 2112. The Examiner has failed to provide such bases, and as Applicant has shown above, the alleged inherent characteristics are not in fact inherent. Accordingly, it is submitted that claims 15-17 and 20 define over Nickel.

Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness when rejecting claim 7-10, 12 and 21. The Examiner argues that one would combine a post from Thompson, which is attached to a spherical sealing member, to the sealing member of Nickel to prevent rotational movement of the sealing member. The mere fact that references can be combined does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination MPEP § 2143.01. The rod (post) 14 of Thompson allows for movement of a ball 13 when a pipe 12 is screwed onto a stem 10. Projection 17 in the pipe 12 contacts pin 16 which is attached to the rod 14 allowing the ball 12 to move. Nowhere does Thompson indicate that the rod 14 is for the purpose of preventing rotational movement of a sealing member.

Furthermore, Nickel fails to provide any motivation for modifying the sealing member 14 in FIGURE 1 to include a tail portion. In fact, adding a post or tail portion to the sealing member to FIGURE 1 of Nickel would hinder the ball's ability to seat against either valve seat 7 or valve seat 13 in that the tail portion or the post may not fit through the opening provided in the valve seat 7, 13 prohibiting the ball from seating on the valve seat. If the ball 8, 14 cannot seat, the function of Nickel, which is trapping heat, would be destroyed.

It appears that the Examiner's motivation for combining Nickel with Thompson was taken from Applicant's specification, which is impermissible hindsight. Accordingly, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case for obviousness and that claims 7-9, 10 and 21 patentably define over the cited references.

In view of the above, it is submitted that claims 1-3 and 5-21 are in condition for allowance. Early notice to that effect is earnestly solicited.

Respectfully submitted,

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Date

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